

Receiving Report

Date: 15-01-5

Batch No: 131187

Supplier: B/E

Dart P/O: 26840

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☒ No ☐
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☒ No ☐
 Shipment Complete: Yes ☐ No ☐ N/A ☒
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

Sy

Production/Admin:

Date

Received/Costing

Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO26870

Purchase Order Date 12/22/2014

PO Print Date 12/22/2014

Page Number 1 of 3

Order From :

VU-BEA001

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED

Contact Name

Vendor Phone 305-925-2600

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Ship To Contact

Ship To Phone

Terms

Net 30

Ship Via:

FedEx Overnight collect

Currency

USD

Ship Acct:

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	MS21060-L3K	Nut Plate	12/23/2014 Yes 12/23/2014		200.00 Each	\$0.97	\$194.00
Line Total:							\$194.00
2	MS9321-09	Washer	12/23/2014 Yes 12/23/2014		300.00 Each	\$0.06	\$18.00
Line Total:							\$18.00
3	MS21061L08	Nutplate	12/23/2014 Yes 12/23/2014		50.00 Each	\$0.88	\$44.00

SP 1501-5

Note:

12/22/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO26870**

Purchase Order Date 12/22/2014

PO Print Date 12/22/2014

Page Number 2 of 3

Order From :

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-BEA001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Total: \$44.0

4	MS21069L3	ANCHOR NUT	12/23/2014	FN	50.00	✓	\$0.35	\$17.5
			Yes		Each			
			12/23/2014					

Line Total: \$17.5

5	MS21073L5	Anchor Nut	12/23/2014	FN	50.00	✓	\$3.75	\$187.5
			Yes		Each			
			12/23/2014					

Line Total: \$187.5

6	MS17985-C410	Pip Pin "T"	12/23/2014	FN	3.00	✓	\$15.00	\$45.0
			Yes		Each			
			12/23/2014					

Line Total: \$45.0

2015-01-5

Note:

12/22/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO26870**

Purchase Order Date 12/22/2014

PO Print Date 12/22/2014

Page Number 3 of 3

Order From :

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-BEA001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

7	71401-45	PROCUREMENT QUALITY CLAUSES	12/23/2014	1.00	✓	\$0.00	\$0
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No

12/23/2014

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT

A033 STATEMENT OF CONFORMITY/TEST RECORDS

FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

SP 15-01-5

Line Total: \$0.

PO Total: \$506.

u cd

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 12/22/2014



B/E Aerospace, Inc.

CONSUMABLES MANAGEMENT

Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.beconsumables.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: B/E Aerospace Consumables Management • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002



INVOICE NUMBER

HXRSM6

PAGE 1 OF 3

SEND TO ACCOUNTING

SOLD TO:
002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO26870		12/22/14	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
001	200	MS21060L3K LOCKNUT, PLATE - TWO LUG ECCN :9A991 Country Origin: MEXICO TARIFF: 7318.16.0085 MFR: ALCOA KAYNAR FULLERTON CTRL# : 2008C04655 LOT# : 5277262-000 LOT QTY: 200 COUNTRY OF ORIGIN: MX Country of Origin: MEXICO	0.970	EA	0	200	194.00
002	300	MS9321-09 WASHER ECCN :9A991 Country Origin: USA TARIFF: 7318.22.0000 MFR: MOELLER MFG CTRL# : 2014G26286 LOT# : 1029-6/4/14 LOT QTY: 300 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.060	EA	0	300	18.00
003	50	MS21061L08 LOCKNUT, PLATE - ONE LUG ECCN :9A991 Country Origin: USA TARIFF: 7318.16.0085 MFR: PAOLO ASTORI CTRL# : 2010D16477 LOT# : 33204 LOT QTY: 50	0.880	EA	0	50	44.00
CONTINUED							
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY B/E AEROSPACE							

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
http://www.beconsumables.com/cm/conditions_of_sale.cfm



B/E Aerospace, Inc.

CONSUMABLES MANAGEMENT

Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.beconsumables.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: B/E Aerospace Consumables Management • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002



INVOICE NUMBER

HXRSM6

PAGE 2 OF 3

SEND TO ACCOUNTING

SOLD TO:
002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



ORDER NO. PO26870		DATE 12/22/14	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45		SHIPPING TERMS FOB-MIAMI		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION			PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
004	50	COUNTRY OF ORIGIN: USA Country of Origin: USA MS21069L3 LOCKNUT, PLATE - TWO LUG ECCN :9A991 Country Origin: ITALY TARIFF: 7318.16.0085 MFR: PAOLO ASTORI CTRL# : 2014J27181 LOT# : 60363 LOT QTY: 50			0.350	EA	0	50	17.50
005	50	COUNTRY OF ORIGIN: IT Country of Origin: ITALY MS21073L5 LOCKNUT, PLATE - CORNER ECCN :9A991 Country Origin: ITALY TARIFF: 7318.16.0085 MFR: PAOLO ASTORI CTRL# : 2014A56393 LOT# : 51767 LOT QTY: 50			3.750	EA	0	50	187.50
006	3	COUNTRY OF ORIGIN: IT Country of Origin: ITALY MS17985C410 PIN ECCN :9A991 Country Origin: USA TARIFF: 7318.24.0000 MFR: AVIBANK MFG. CTRL# : 2014C05649			15.000	EA	0	3	45.00
CONTINUED									
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY B/E AEROSPACE									

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
http://www.beconsumables.com/cm/conditions_of_sale.cfm



B/E Aerospace, Inc.

CONSUMABLES MANAGEMENT

Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.beconsumables.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: B/E Aerospace Consumables Management • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002



INVOICE NUMBER

HXRSM6

PAGE 3 OF 3

SEND TO ACCOUNTING

SOLD TO:
002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



ORDER NO. PO26870		DATE 12/22/14	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45		SHIPPING TERMS FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
		LOT# : 1402728 LOT QTY: 3 COUNTRY OF ORIGIN: USA Country of Origin: USA <i>These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.</i> *** SHIPPED 1 CTN *** # 1=CTN 4# 0 OZ. 624703805359 FREIGHT ACCT# 15179324-0						
apay 9F6TZ6		SHIPPED ON 12/22/14						
form #16007.000303		**CONSOLIDATION# 1B5LAN						
							SUBTOTAL :	506.00
							HANDLING :	0.00
							DISC/ALL :	0.00
							INCM FRT :	0.00
							FREIGHT :	0.00
							TOTAL :	506.00USD
								U.S. CURRENCY
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY B/E AEROSPACE								

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172



ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
http://www.beconsumables.com/cm/conditions_of_sale.cfm



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
003	50 EA		MS21061L08		33204	PAOLO ASTORI	A3856		


Jason Lewis
Vice President of Quality

12/22/14

**PAOLO ASTORI SPA**

Via Mirabella, 9 - Maggiate Superiore
28013 Gattico (NO) - ITALY
Tel. (+39) 0322 838847
Fax (+39) 0322 880198
Web: www.paoloastori.com

**CERTIFICATO DI CONFORMITA'
CERTIFICATE OF CONFORMANCE****N° 2650****Data 16/04/2010****Spett:**

B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.
MIAMI - FL
USA

Si certifica che il materiale sotto elencato è stato collaudato presso la nostra officina e risulta conforme ai requisiti dei vostri ordini e alle specifiche dei disegni ivi richiamati.

This is to certify that goods listed below have been inspected in our plant and are up to your orders and to the specifications of the drawings mentioned therein.

Pos.	Descrizione merce	Rif.Ordine	Data Ordine	Quantità	U.M.	Lotto	Peso
1	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
2	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
3	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
4	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
5	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
6	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
7	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
8	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
9	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
10	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
11	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
12	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
13	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	
14	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	

• SUPPLIES RELEASED IN ACCORDANCE WITH REQUIREM. OF BAE/AQ/SC1 PART 3- APPROVAL # BAE/AQ/30631/MAA AND WITH AIRBUS BAS APPROVAL # 204788

Airbus approval # 204788

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The sellers manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, as seller option, and in no case is to exceed the invoice value of such goods. Under no circumstance will seller be liable for damages or cost incurred by buyer or subsequent user beyond the invoice value of the parts in subject.





PAOLO ASTORI SPA
Via Mirabella, 9
28013 Maggiate Superiore (NO)
Tel. (+39) 0322 838847
Fax (+39) 0322 880198



INSPECTION CERTIFICATE

33204

Report # **33204**
Customer P/N **MS21061L08 (NAS687A08)**
Astori product code **10AD25A086N13**
Lot # **33204**
Procurement Spec. **NASM25027**
Raw material Spec. **SAE1042**
Raw Material Lot # **-2068**
Purchase Order Ref: **B/E AEROSPACE INC. CONSUMABLES MANAG (P.O. 0AW700)**

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The seller's manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, as seller option, and in no case is to exceed the invoice value of such goods. Under no circumstance will seller be liable for damages or cost incurred by buyer or subsequent user beyond the invoice value of the parts in subject.

TEST DESCRIPTION	SAMPLES #	UNIT	REQUIRED VALUES		ACTUAL VALUES	OPERATOR BADGE #
			Min	Max		
AXIAL TENSILE LOAD (N)		N	7654		>9050	118
DIMENSIONAL INSPECTION		.	.	.	OK	
DISCONTINUITY INSPECTION		.	.	.	OK	
HARDNESS TEST		HRC		49	40.2-43.8	118
LOCKING TORQUE (Nm)		Nm	0.17	1.73	1.3-0.8-0.3	118
THICKNESS OF COATING		micron	8	12	9-11	118
VISUAL INSPECTION		.	.	.	OK	

Note.

This is to certify that parts have been produced, controlled and accepted according to the requirements of the above specification.
Material, heat treatments and manufacturing processes are the same as those used for the qualification approval.
The chemical analysis values have been reproduced from the original certificates released by the raw material supplier.

PRIMARY HEAT CHEMISTRY

C	0.445	Mn	0.650	Si	0.210	S	0.003	P	0.013
Al	0.025	Cr	0.250						

This is to certify that the goods have been produced, inspected and accepted according to the requirements of the above Specification.

The supplies hereon are released to you in accordance with the requirements of BAE/AG/SC1 PART 3 under our approval number BAE/AG/30631/MAA

Issue Date **17/03/2010**

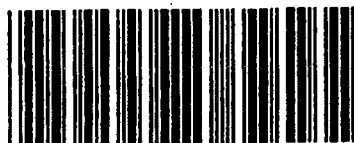
EN10204 COMPLIANT - DESIGNATION 3.1:B

Prepared da:
Gabriele Campagnoli

C9

**PAOLO ASTORI SPA**

Via Mirabella, 9 - Maggiate Superiore
28013 Gattico (NO) - ITALY
Tel. (+39) 0322 838847
Fax (+39) 0322 880198
Web: www.paoloastori.com

**DOCUMENTO DI TRASPORTO (D.d.T.)**

N° 2650 Data 16/04/2010 Pag. 2 / 2

Spett: 9449
B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.
MIAMI - FL
USA

Destinazione: 370
B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.

33172 MIAMI - FL US

Cod.Cliente

Pos.	Descrizione merce	Rif.Ordine	Data Ordine	Quantità	U.M.	Lotto	Peso
14	MS21061L08 (NAS687A08) (TR)	0AW700	09/02/2007	5000	N	33204	

• SUPPLIES RELEASED IN ACCORDANCE WITH REQUIREM. OF BAE/AG/SC1 PART 3- APPROVAL # BAE/AG/30631/MAA AND WITH AIRBUS SAS APPROVAL # 204768

Aspetto esteriore merce	Comprende DdT n°	Segue su DdT n°
Tramite spedizione VETTORE	Modalità di consegna PORTO ASSEGNATO	Firma conducente
Causale trasporto VENDITA PRODUZIONE	Data inizio trasporto	Firma destinatario
Primo vettore FEDERAL EXPRESS EUROPE INC. # 327657348	Data ritiro merce	Firma primo vettore
Secondo vettore	Data ritiro merce	Firma secondo vettore

AI SENSI DELL'ART.13 D.LGS 196 DEL 30/06/2003 IL DESTINATARIO PUO' AVERE ACCESSO AI SUOI DATI E CHIEDERNE LA MODIFICA,COME PREVISTO DALL'ART.7 DEL D.LGS 196 DEL 30/06/2003, SCRIVENDO A PAOLO ASTORI SPA, VIA MIRABELLA 9, 28013 MAGGIATE SUPERIORE - GATTICO (NO)



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
006	3	EA	MS17985C410		1402728	AVIBANK MFG.		84256	


Jason Lewis
Vice President of Quality

12/22/14

DEARS CERT Q13-P



AVIBANK
MFG. INC.

AEROSTRUCTURES DIVISION, A PCC COMPANY

11500 SHERMAN WAY • NORTH HOLLYWOOD, CA 91605

PHONE: (818) 392-2100 • FAX: (818) 255-2094

No ozone depleting substances used in processes.

CERTIFICATE OF CONFORMANCE

SHIPPER

DATE SHIPPED

02/24/14

PAGE	OF	DATE ENTERED	SALES ORDER NO.
1	2	08/15/13	663037-7872

B 103866
I B/E AEROSPACE
L 10000 N.W. 15TH TERRACE
L
T MIAMI, FL
O USA 33172

S B/E AEROSPACE CONSUMABLE MGMNT
H 9835 NW 14TH ST
I
P
T MIAMI, FL
O USA 33172

CUSTOMER ORDER NO.	CONTRACT NUMBER	RATING	ORDERED BY	REC'D BY	TERRITORY NO.
0RSF84			JANETZA	GLE	124

PS	CERT	INV	DD 250 REQ'D	PRES PKG REQ'D	RESALE OR TAX	VAR %	TYPE OF INSPECTION	TERMS	FREIGHT
0	1	1	3	N	N	R		1/2% 10, NET 30	NOHO/COLLECT

SHIPPED VIA

FEDEX GROUND

ITEM NO.	NO. SHIPPED	UNITS	PART NUMBER / DESCRIPTION	NO. BACKORDERED
001	500	E	FEDEX ACCT# 0331-0149-0 QAP 33.0 CLAUSES A,A.1,B,C,E,H,P,U,V APPLY *** 3 LOT MAX *** RELEASE #GVM60RSF84 BLC4TA10S MS17985C410 SHIP#: 1 QTY : 296 LOT:1402728 AREA :NS AISLE :E SEC:19 SHIP#: 1 QTY : 150 LOT:1406596 AREA :NS AISLE :E SEC:2 SHIP#: 1 QTY : 54 LOT:1406597 AREA :C6 AISLE :1 SEC:14	0
002	1	L	270-CERT Q13-P CHEM & PHY CERTS 001 SHIP#: 1 QTY : 1 LOT: AREA : AISLE : SEC:	0

PULLED BY	SHIPPED BY	SHIP VIA	DATE SHIPPED	WAYBILL/OTHER INFO.	NO. OF PGS.	WEIGHT
Oscar	Oscar	FedEx	2/24/14		1	

We hereby certify that all materials used in the manufacture of parts covered by this report conform to the material specifications called for by the above purchase order. We further certify that the parts are manufactured in accordance with applicable drawings or specifications current on the date on which the order was placed. Test reports covering materials in these parts, and indicating conformance with applicable specifications, are on file and subject to examination. No ozone depleting substances were used in processes. Parts are mercury free of contamination.

WI-14-AMS-004 REV:NC

AVIBANK MFG., INC.

BY: *[Signature]*
AUTHORIZED QUALITY CONTROL REPRESENTATIVE

Acciaierie Valbruna s.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clients / Besteller/Kunden/Klient
VALBRUNA STAINLESS INC.
2400 TAYLOR STREET WEST
46801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Fabrikant/Usine producer

Stato di fornitura: Hot rolled - Annealed Cold Drawn
Lieferzustand/Delivery state/Etat de livraison

Specifiche:
Anforderungen / Requirements / Edigences
VSI 0 303 HS A,CF
AMS 5640 U TYPE1 A
ASTM A320 2011A B8F (1)
MIL-S-862 B/1 303

(0) SEC.II PT.A 2010 EDITION ADD. 2011a
(1) Chemical analysis only.

Qualità: 303HS
Werkstoff/Grade/Qualität

Marca: MV188ZHS
Markenbezeichnung/Brand/Numéro
MAXIVAL

Tolleranza: ASTM A484-11
Toleranz/Allowance/Tolérance

Punzonatura: 303HS
Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Description du produit	Dimensioni - in Abmessungen Dimension	Lunghezza - in Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0010	Round	0,4063	144 / 147	425808		3.871	208804100

TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf Lieferbereitem produkt test a l'état de fourniture Prueba sobre el material así como entregado

TEST	Proveita/Probeten Stabprobentypen Längsprobe Wich Probe Wich Probe Längsprobe mm	Posiz. Staggo Position Position	Snervamento Streckgrenze Yield Stress Unter derbiegung Rp 0,2% k.s.l.	Snervamento Streckgrenze Yield Stress Unter derbiegung	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Bruchdehnung Reduction of area Striction RA %	Resilienza Hochschlagarbeit Impact Value Resilience	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Required data Valeurs demandées	min								140
	max								255
A	8,75	68	L	89	114	36	54		252

TEST	min	max
A Grain size for ASTM E112		5

1) L-Longitudinaldehnung, T-Transversaldehnung, Q-Tangentialdehnung

Mechanical properties according to ASTM A370.

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Coulée	min 0,030 max 0,050	0,20 1,00	1,50 2,00	17,00 18,00	0,60	1,00	8,00 10,00	0,100	0,32	0,4000				
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %			
425808	0,049	0,43	1,80	17,34	0,41	0,57	8,09	0,059	0,028	0,34	0,0041			

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1940°F for 1 h/water.
Micro and macro etch test: OK
Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind i. Anlage erfüllt
The material has been finished in accordance with the requirements
Le matériel a été traité conforme aux exigences

Controllo antimescolanza: OK
Verwechslungsprüfung: spezialanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antimeslange fait: r.a.s.

Controllo visivo e dimensionale: soddisfa le esigenze
Beichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks: satisfactory
Contrôle visuel et dimensionnel: satisfaisant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination
We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.
The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s., 4.3 by TUEV and LLOYD'S

Vicenza, 06/06/13 VCC006 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkssachverständige / Works inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
--	---	-----------------

CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004), 3.1



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

Avviso di Spedizione: D-VI13017145
Lieferanzeige/Packing list/E.L.

Ordine nr: 35928 STOCK CHINO
Beste/Your order/Commande

Tipo di Elaborazione: E+AOD
Erzeugnisart/Fabrication process/Mode d'elaboration

Certificato nr: MEST358011/2013
Prüfung/Test/Essai

Conferma ordine nr: EI13004535
Werk/Our Order/Ref. nr.

Marchio di Fabbrica:
Zeichen des Unternehmens
Trade mark
Sigle de l'usine productrice

Punzone del Collaudatore:
Stempel des Werksachverständigen
Inspection stamp/Pointon de l'essayeur

AMS 5640 U S30300 A
ASTM A314 2008 S30300
ASTM A582 2012 S30300 A

Q. C. Review
Sig. *Nom*
Date 10/18/13

Lot # 1381726

CERT REVIEW

MAIN LOT #
1402728 / 1406576
COMPONENT LOT #
K130564

NAME
SHOULDER RING
CLEAN: GV
MR. S. P. B.

Acciaierie Valbruna s.p.A.

38100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clienti / Besteller/Purchaser/Clients
VALBRUNA STAINLESS INC.
2400 TAYLOR STREET WEST
46801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Manufacturer

Stato di fornitura: Hot rolled - Annealed Cold Drawn
Lieferzustand/Delivery state/Etat de livraison



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

Avviso di Spedizione: D-VI13017145
Lieferanweisung/Packing list B.L.

Ordine nr: 35928 STOCK CHINO
Bestell/Your order/Commande

Tipo di Elaborazione: E+AOD
Erzeugnisart/Manufacturing process/Mode d'elaboration

CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2004) , 3.1

Certificato nr: MEST358011/2013/
Prüfung/Test/Essai

Conferma ordine nr: E113004535
Werkz/Our Order/Ref. nr.

Marchio di Fabbrica:
Zeichen des Lieferanten
Trade mark
Sigle de l'usine productrice

Funzione del Collaudatore:
Stempel des Werksachverständigen
Inspector's stamp/Plaqueon de l'inspecteur



Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.
Maximal and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Q. C. Review
Sig. *Namur*
Date *10/8/13*
Lot# 1381726



Vicenza, 06/06/13
VCC008
(Mod. MCE2)

Il collaudatore di stabilimento / der Werksachverständige / Works inspector / L'agent d'usine

M. Rizzotto *[Signature]*

Pagina - 2 di 2

RE: Shipper # 94

PHONE: (310) 537-1597
FAX: (310) 537-0503

Thorock Metals, Inc.

QUALITY INGOTS

ALUMINUM PROCESSING AND RECYCLING
P.O. BOX 3012 435 E. WEBER AVENUE COMPTON, CA 90222

Aluminum Die Casting Alloy Certificate of Analysis

Heat Number: 4235 Alloy: 380

<u>ELEMENT</u>		<u>PERCENTAGE</u>		<u>Specification Range (minimum -- maximum)</u>
Silicon	Si	8.17	✓	7.50 -- 9.50
Iron	Fe	0.97	✓	2.00
Copper	Cu	3.16	✓	3.00 -- 4.00
Manganese	Mn	0.20	✓	0.50
Magnesium	Mg	0.08	✓	0.10
Zinc	Zn	2.85	✓	3.00
Nickel	Ni	0.08	✓	0.50
Chromium	Cr	0.03	✓
Titanium	Ti	0.06	✓
Lead	Pb	0.05	✓
Tin	Sn	0.04	✓	0.35
OET		< 0.50	✓	0.50
Aluminum	Al	Remainder	✓	Remainder

CERT REVIEW

MAIN LOT # 1402728

COMPONENT LOT #

✓ LB30533

NAME

✓ HANDLE

CLERK: GV NC ~~DS~~

This Product was Manufactured in the United States of America

Conforms to ASTM B 85/B 85M - 10

Conforms to AMS and QQ / A / 591F

Conforms to SAE J452

This Product is RoHS Compliant

OCT 21 2013

LOT # 1384728

Samples are analyzed on an optical emission spectrometer with current calibration status. Standards are traceable to NIST.

Respectfully Submitted,

[Signature]

General Manager,
Thorock Metals, Inc.

WARNING: Metal may contain crevices that hold entrapped moisture which can explode when charged to a melting furnace. Dry and preheat all metal before charging it into the furnace. Handle with caution.

Wednesday, July 31, 2013

QSF 13 Issue 2.

Page 1 of 1

ENTERED *8/1/13*
By: *Awj* post 9978

Jon Carrino



Accredited

NadcapTMANODIZING INDUSTRIES
AEROSPACE QUALITY SYSTEMS
CHEMICAL PROCESSING**Anodizing Industries' Certification**

Los Angeles, CA 90032

323-227-0949

Fax#: 323-227-0535

5160 Alhambra Ave

Prepared Date

Work Order #

11/21/2013

7036

Bill To	Ship To
AVIBANK MFG 11500 SHERMAN WAY NORTH HOLLYWOOD, CA 91605	AVIBANK MFG 11500 SHERMAN WAY NORTH HOLLYWOOD, CA 91605

P.O. Number	Date Received	Ship Date	Ship Via
752229	12/21/2013	11/20/2013	

QUANTITY	PART #	PART NAME	CERTIFIED PROCESS
3,874	5-4AT	HANDLE REV G	ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 DYE BLACK. PER DWG# 5-XXAT REV. G FOR REFERENCE ONLY. MAT'L: ALUM ALLOY
CERT REVIEW MAIN LOT # 1402728 COMPONENT LOT # KB30533 NAME HANDLE CLERK: GV <input type="checkbox"/> NO <input checked="" type="checkbox"/> DS <input type="checkbox"/>			 Q. C. Review Sig. <i>[Signature]</i> Date 11/22/13 Lot# 1394429

 QA Inspected By	 Date 11/21/13	NDT Level II	Date
Anodizing Industries must be notified of any discrepancies within 3 days of receipt. Any liabilities for discrepancies or damages to parts are subject to negotiation and not to exceed 3 times the cost of services provided.			

THOMSON

Linear Motion. Optimized.

SHIP TO: AVIBANK MFG INC
11500 SHERMAN WAY
NORTH HOLLYWOOD CA 91605
United States

CERTIFICATE OF CONFORMANCE

DELIVERY NAME: 2861389 **DATE PRINTED:** 16-OCT-2013 **PAGE:** 1 of 1

SHIP FROM: ABEK LLC
492 Birch Street
Bristol CT 06010
United States

Tel: (860) 314-3921 **Fax:** (860) 314-3942

BILL TO: AVIBANK MFG INC
11500 SHERMAN WAY
NORTH HOLLYWOOD CA 91605
United States

PICK-UP DATE: 03-OCT-2013		SHIP METHOD: UPS-Truck-Ground		FREIGHT TERMS: COLLECT - FROM ORIGIN		FSCM:		
DELIVERY TERMS EXWORKS FACTORY		TAX NAME: EXEMPT		CUSTOMER TAX NUMBER:		WAYBILL: 1Z0176470367415479		
SHIPPING INSTRUCTIONS: ACCT# 60X10X				TAG NUMBER/REF:		PO REF#:		
ITEM NUMBER	REFERENCE ITEM	ITEM DESCRIPTION	CUSTOMER PO NO.	ORDER NO.	LEN ORDER NUMBER	UOM	QTY ORDERED	QTY SHIPPED
SS0078121CXXXDF	SS0078121CXXXDF	5/84 440C GRADE 100 (DFAR REQUIRED) - SS0078121CXXXDF	746187	1733769	1.1	MPC	100.01	100.0
COUNTRY OF ORIGIN: ****EAR99****		United States						
Lot Number L0012660		Quantity 100.0	Heat Number G16861R09		Hardness Test HRC		Hardness 60-61	
<p>Material meets DFAR 252.225-7006:7014. Material certs meet ASTM F-2215. Material meets AMS QQ S 763 and AMS 5830 Country of Origin (Ball): USA Country of Melt (Material): USA Heat Treat meets AMS 2759/5</p> <p>These commodities, technology or software, if being exported from the United States must be exported in accordance with the Export Administration Regulations. Diversion contrary to U.S. Law is prohibited.</p> <p>DO NOT SHIP OUT UNTIL 10/04/2013 - CARLOS FIGUEROA</p>								
<p>CERT REVIEW</p> <p>MAIN LOT # 1402728 1406596</p> <p>COMPONENT LOT # KB30507</p> <p>NAME BALL</p> <p>CLERK: GV — NC <input checked="" type="checkbox"/> DS —</p>								
NUMBER OF PACKAGES 1			GROSS WEIGHT 8.0 LB			VOLUME		
<p>THE UNDERSIGNED, INDIVIDUALLY, AND AS THE AUTHORIZED REPRESENTATIVE OF THOMSON INDUSTRIES INC., WARRANTS AND REPRESENTS THAT; ALL THE INFORMATION SUPPLIED ABOVE IS TRUE AND ACCURATE; THE MATERIAL COVERED BY THIS CERTIFICATION CONFORMS TO ALL CONTRACT REQUIREMENTS (INCLUDING BUT NOT LIMITED TO THE DRAWING AND SPECIFICATIONS); THE INSPECTION AND THE ANALYSIS HEREIN ARE TRUE AND ACCURATE.</p> <p style="text-align: right;"><i>[Signature]</i></p> <p style="text-align: right;">QUALITY ASSURANCE MANAGER AUTHORIZED SIGNATURE</p>								

PERTH, ON
ERIN, ON
DUMAS, AR
LANCASTER, SC
FOND DU LAC, WI

613-267-3752 FAX 613-267-8817
519-833-9632 FAX 519-833-2213
870-382-2880 FAX 870-382-8988
803-283-3353 FAX 803-283-8303
920-926-0609 FAX 920-926-0662



UNION, IL
HOUSTON, TX
PERRIS, CA

816-923-2131 FAX 816-923-2126
713-466-1000 FAX 713-466-7425
951-557-2105 FAX 951-843-8061

THE LEADING MANUFACTURER OF STAINLESS STEEL, NICKEL ALLOYS AND WELDING WIRE PRODUCTS
EXECUTIVE OFFICES: PERTH, ON CANADA - EMAIL: sales@centralwire.com

CENTRAL WIRE LANCASTER
1552 CASKEY ROAD, LANCASTER
SOUTH CAROLINA U.S.A 29720

CERTIFICATE OF CONFORMANCE

SOLD TO	NEW ENGLAND MINIATURE BALL, LLC P.O. BOX 585 NORFOLK USA	SHIP TO	NEW ENGLAND MINIATURE BALL, LLC 163 GREENWOODS ROAD WEST NORFOLK USA
	CT 06058-0585		CT 06058-0585

CUSTOMER'S PO NO. 028994-00	TYPE OF CERT Customer	CUSTOMER 121470	ORDER NO. 1157709	1	WORK ORDER 4116821	DATE SHIPPED 1/21/11
SPECIFICATIONS: ROD TENSILE 118.0 (UNITS KSI)						

ITEM DESCRIPTION			
DESCRIPTION		SPEC. CLASS	HEAT
Forming 440C ANNEALED Black .1200 Coils Std. Clean		Melt mill USA Country of origin USA	G16861R09
		QTY SHIP 2478	035

CHEMICAL ANALYSIS						
C 1.03 ✓	MN .76 ✓	SI .29 ✓	S .003 ✓	P .014 ✓	CR 16.98 ✓	W < .05
V .05	NI .32 ✓	MO .49 ✓	CO < .05	CU < .02 ✓	SN .005	CB .01
AL < .01 ✓	TI < .01	N .046				

MECHANICAL PROPERTIES							
AS SHIPPED PROPERTIES: DIAMETER .1201							
TENSILE 97.800 KSI	HARDNESS 92.000						
AFTER HEAT TREAT PROPERTIES:							

ASM 5630 AMS-QQ-S-783 ASTM A756 ASTM-F2215	AMS 5618 AMS 5880	10-12-13 DFARS OK AUTHORIZED SIGNATURE
The material as shipped is free from mercury contamination. I certify the chemical analysis and physical and mechanical test results reported above are correct as contained in the records of the company.		
Very truly yours,		

CERT REVIEW

MAIN LOT #

1402728, 1406596

COMPONENT LOT #

8830160

NAME

BODY

CLERK: GV NC DS

TRI STAR METALS, LLC.

611 WEST LAMM ROAD

FREEPORT, IL 61032

An ISO 9001:2008 Registered Company

CERTIFICATE DATE: 8/27/13

CUSTOMER: COPPER & BRASS

ORDER#: 200183

CUSTOMER PO#: 5400185706-R05

MATERIAL: 17-4PH ✓

DESCRIPTION: .255" X 12'

HEAT NUMBER: E130597

QTY. SHIPPED: 1,458 LBS

CONDITION: ANNEALED

PART #: XSSRD05811

CHEMICAL COMPOSITION

C	Mn	Si	S	P	Ni	Cr	Mo	Other Elements
.0130	.7300	.3470	.0270	.0280	4.690	15.29	.2900	Cu=3.378 Co=.1110
✓	✓	✓	✓	✓	✓	✓	✓	N=.0310 Ti=.0020
								Nb=.2700 Al=.0020
								B=.0010 Sn=.0080
								V=.0500 W=.0300
								As=.0010 Ca=.0020
								Ta=.0030 Pb=.0002

MECHANICAL VALUES

TENSILE (KSI)	YIELD (KSI)	ELONGATION (%)	REDUCTION OF AREA (%)	HARDNESS
138	128	11	66	279 HB

✓ **H900 HT CAPABILITIES 900F FOR 1 HR AIR COOL**

TENSILE (KSI)	YIELD (KSI)	ELONGATION (%)	REDUCTION OF AREA (%)	HARDNESS
200	198	11	55	406 HB

ADDITIONAL REMARKS:

This material meets the chemistry specifications for AMS 5643R, ASTM A564-04, ASTM A484-10, ASME-SA-564 CHEM & MECH. MACRO & MICRO STRUCTURES OK PER AMS 5643. DELTA FERRITE=.4%

MATERIAL IS FREE FROM MERCURY CONTAMINATION. EN10204 3.1.B
COUNTRY OF MELT: ENGLAND

MATERIAL IS MANUFACTURED IN THE UNITED STATES OF AMERICA

I hereby certify that this data is correct as contained in the records of this company.

ThyssenKrupp Materials NA, Inc.
Copper and Brass Sales Division Sold to:
QUALITY CONTROL REPRESENTATIVE
QSD-007 REV. ORG. 4/17/2013

Customer: **AVIATION MFG**
Your PO#: **121415**
CBS Order #: **1210217305**
Quantity: **52418**
Date: **10-29-13**
By: **James P. Elliott**
Quality Check

James P. Elliott-Quality Process Manager

Q. C. Review
Sig. **[Signature]**
Date **10/31/13**
Lot # **1387955**

Outokumpu Stainless Ltd.
ASR Rod Mill
Stevenson Road
Sheffield, S9 3XG
Telephone: +44 (0) 114 242 1124
Fax: +44 (0) 114 242 2152

Prüf-Nr
Test certificate No. **77869**
No du certificat

In Accordance With EN 10204.3.1

Rechnungs-Nr Invoice/Cons No No de facture	Bestell-Nr Customer Order No No de commande client	NORM 1714PH(630) Rev 09-13-11 (UNS S17400) COND. A	SPECIFICATION NORME
77898	244811		
ADDRESS Tri Star Metals LLC 611 W.Lamm Rd Freeport, Illinois 61032 USA 61032		Werkst. Nr. Werkst. Order No. No de commande client	AV200606/01
		Lieferbedingung Supply Condition S.A. des livrables	SOFTENED AND DESCALED
		Produkt Product	7.00 mm Round
		Geometrie Geometry Quantité	10 rod coils for 5.882t
		Schmelz-Nr. Cast No. No de coulée	E130597

Schmelzanalyse						Cast Analysis					Analyse de Coulée			
%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%Ti	%Nb	%N				
0.0130	0.3470	0.7300	0.0280	0.0270	15.2900	0.2900	4.6900	0.0020	0.2700	0.0020	0.3010			
%Co	%Cu	%Sn	%N	%V	%W	%Al	%Ca	%Ta	%Pb					
0.1110	3.3780	0.0080	0.0310	0.0500	0.0300	0.0010	0.0020	0.0030	0.0002					

Mech und phys Eigenschaften				Mechanical and Physical Properties				Caractéristiques mécanique			
0.2%PS kPSI	1.0%PS kPSI	UTS kPSI	RA%	Korngröße Grain Size Taille de grain	Dehnung % Elongation % Allongement %	Härte Hardness Dureté	Hb				
114.580	134.305	137.061	65.1	8.5 8.5	1.0	300 00					
Decarb	Max	Batch Average	Batch Percentage	Cleaness				Intercrystalline Corrosion Test			

Additional information
Free from known Mercury or Radium Contamination
Material free from welds
Melting Practice: EAF and AOD
Solution annealed at 1800F +/- 25 for 1.5hrs
Material melted and rolled in Sheffield, England by Outokumpu Stainless Ltd.
Ultrasonic to AMS2630 & Magnetic Particle to AMS 2303 both Pass No CH
or Sigma phase at 100x per ASTM E407 Macro and Micro structure OK per
AMS 5643 Chemistry, melt practice, material integrity and capability of
meeting spec. ASME/ASTM A564, AMS 5643, ASTM A484

ENSO Manager

Rob Charlesworth

Rob Charlesworth

Date
Date
12/07/2013

This order was manufactured according to a Quality System
registered to ISO 9001:2008 and approved by TÜV Nord.
Certificate Registration No. 44 100 118406

Quality confirmed by surveillance of 100% analysis
Assurance de qualité confirmée par surveillance de 100% d'analyse
Quality confirmed by surveillance of 100% analysis
Assurance de qualité confirmée par surveillance de 100% d'analyse

Manufacturing process description
Description du processus de fabrication
Manufacturing process description
Description du processus de fabrication

Quality confirmed by surveillance of 100% analysis
Assurance de qualité confirmée par surveillance de 100% d'analyse
Quality confirmed by surveillance of 100% analysis
Assurance de qualité confirmée par surveillance de 100% d'analyse

MAIN LOT #

COMPONENT LOT #

NAME

CLERK: GV NC DS

TRI STAR METALS, LLC.
611 WEST LAMM ROAD
FREEPORT, IL 61032

An ISO 9001:2008 Registered Company

CERTIFICATE DATE: 6/11/13 CUSTOMER: COPPER & BRASS
ORDER#: 198287 CUSTOMER PO#: 5400179861-R05
MATERIAL: 17-4PH DESCRIPTION: .130" X 12"
HEAT NUMBER: E130597 QTY. SHIPPED: 516 LBS
CONDITION: ANNEALED PART #: XSSRD05808

CHEMICAL COMPOSITION

C	Mn	Si	S	P	Ni	Cr	Mo	Other Elements
.0130	.7300	.3470	.0270	.0280	4.690	15.29	.2900	✓ Cu=3.378 Co=.1110 N=.0310 Ti=.0020 ✓ Nb=.2700 Al=.0020 B=.0010 Sn=.0080 V=.0500 W=.0300 As=.0010 Ca=.0020 Ta=.0030 Pb=.0002
✓	✓	✓	✓	✓	✓	✓	✓	

MECHANICAL VALUES

TENSILE (KSI)	YIELD (KSI)	ELONGATION (%)	REDUCTION OF AREA (%)	HARDNESS
140	121	8	69	279 HB

H900 HT CAPABILITIES 900F FOR 1 HR AIR COOL

TENSILE (KSI)	YIELD (KSI)	ELONGATION (%)	REDUCTION OF AREA (%)	HARDNESS
200	198	11	55	406 HB

ADDITIONAL REMARKS:

This material meets the chemistry specifications for ASTM A564-04, RoHS COMPLIANT,
SAE AMS 5843R ACTUAL CHEMISTRY/ACT. PHYSICAL. DFARS COMPLIANT.

MATERIAL IS FREE FROM MERCURY CONTAMINATION. EN10204 3.1.B
COUNTRY OF MELT: ENGLAND

MATERIAL IS MANUFACTURED IN THE UNITED STATES OF AMERICA

I hereby certify that this data is correct as contained in the records of this company.

QUALITY CONTROL REPRESENTATIVE:

QSD-007 REV. ORG. 4/17/2013

James P. Elliott-Quality Process Manager

Q. C. Review

Sig. *Nancy*

Date 10/30/13

Lot # 1386810

From: ThyssenKrupp Materials NA

Cust. AVIBANK MFG INC

CstAr

Wgt.: 103.000 LB

Del.: 2402762072

CstOr 729445

Date 10/18/2013

John R. Zambetti

Order No: 3659184
Time 09:27:02



FRY STEEL COMPANY
Registered ISO 9001
13325 MOLETTE ST.
SANTA FE SPRINGS, CA 90670
(562) 802-2721

A08040
Cust. NO.: 749752
P.O. NO.:

CERTIFICATE OF COMPLIANCE

AVIBANK MFG INC
ATTN: ACCTS PAYABLE
P O BOX 9909
NORTH HOLLYWOOD CA 91609-1909

AVIBANK MFG
11500 SHERMAN WAY
***RECEIVING CLOSED 11:30-12**
NORTH HOLLYWOOD CA 91605-5827

10/04/13

QTY	--DESCRIPTION--	--ITEM CODE--	--HEAT NUMBER--
	CD 12L14 LEDLOY ASTMA 108 CHEM ONLY WHITE		
7	BARS 17/32"RD 12'RL	61310	AR294179
	BARS 5/8"RD 12'RL CUT 1 PC 15'FT REQD	61350	AR395409
	BAR 7/8"RD 12'RL CUT 1 PC 14'FT REQD	61460	AR395386
	✓ CF 2024 T4 AMS QQS 225/6 RED		
1	PC 3/16"RD CUT 72"LG	84020	13051501-1
189	✓ BARS 5/16"RD 12'RL	84030	13M215 ✓
25	BARS 11/32"RD 12'RL	84033	9711060001

NOTICE

A COPY OF THE ORIGINAL MILL CERTIFICATION IS ATTACHED*

CHEMICALS & PHYSICALS ARE REPORTED THAT WILL MEET THE SPECIFICATIONS SHOWN ON THE CERTIFICATE.
EXCEPTIONS TO SPECIFICATIONS SHOULD BE SHOWN ON THE CERTIFICATION.

AUTOMATIC EXCEPTIONS TO THE SPECS LISTED ARE: LINE MARKING AND INSPECTION (I.E. MAG., SONIC, ETC.)

WE SUGGEST CONSULTING AN EXPERT ABOUT RELATED INSPECTION, PRIOR TO ALTERING THE MATERIAL FROM THE AS SHIPPED/RECEIVED
CONDITION. "DEFECT FREE" MATERIAL CAN NOT BE GUARANTEED WITHOUT PRIOR INSPECTION APPROPRIATE TO APPLICATION.

NO WELD REPAIR HAS BEEN PERFORMED AND THIS MATERIAL IS FREE FROM MERCURY AND RADIUM
CONTAMINATION AT TIME OF SHIPMENT

The willful recording of false, fictitious or fraudulent statements on this document may result as a felony under federal statutes.
*WHEN APPLICABLE

**TO THE BEST OF OUR KNOWLEDGE MATERIAL IS CONFLICT MINERAL FREE --
CERT REVIEW**

MAIN LOT #

1402728, 1406596

COMPONENT LOT #

1373634

NAME

BUTTON

CLERK: GV NC ☒ DS

Q. C. Review

Sig. *Namajr*

Date 10/25/13

Lot# 1381674

Chip Sandoval
CHIP SANDOVAL - Q.C. MANAGER

5/16 RD

13 M 215

Aluminium Mill Certificate

Cert. No.: KAP628824

Customer: TUSKER INTERNATIONAL TRADING INC. FRY STEEL

Contract No.: US SM130929

Alloy Temper 2024 T4 ✓

Container No: CBHU5883403/20



Taishan City Kam Kiu Aluminium Extrusion Co. Ltd

Address: Daijiang County, Taishan, Guang Dong, China

Tel: (86) 7505438596 Fax: (86) 7505438173

✓ 2024-T4

Standards: QQA 225/6 REV E; AMS QQA 225/6 REV A; ASTM B 211 2012; AMS 4120 REV R

Shipment Date: Jul 29 2013

PO No: 47540 1K

Invoice No: M131492

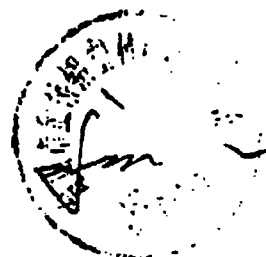
Product Code	Die No	Specification	2024 Chemical Composition (%)														Tensile Strength		Yield		Elongation	
			Heat No	Cast	Si	Mg	Fe	Cu	Mn	Zn	Cr	Ti	Pb	Bi	Zr	Al	N/mm ²	ksi	N/mm ²	ksi	%	
			(Batch No.)	No.	0.50 max.	1.2-1.8	0.50 max.	3.8-4.9	0.30-0.9	0.25 max.	0.10 max.	0.15 max.	--	--	--	Rem.	425	62	310	45	10	
84000	JB70021-1	DRAWN ROD	CFR 5/16	13M215	0.100	1.486	0.292	4.453	0.765	0.018	0.024	0.013	0.006			Rem.	557	81.0	523	76.0	11.8	
84040	JB70021-2	DRAWN ROD	CFR 7/16	13M215	0.100	1.486	0.292	4.453	0.765	0.018	0.024	0.013	0.006			Rem.	481	70.0	423	61.0	10.8	

Remark:

Kam Kiu Aluminium Group hereby certifies that metal shipped under the above mentioned PO No, Contract No, and Container No has been inspected and tested, and found in conformance with the applicable specifications forming a part of the description set forth in Kam Kiu's Sales Contract. This Mill Test Certificate complies to 3.1 EN 10204.

Made By:

Waley

Checked By:

FRY STEEL CO. CERTIFIES THAT THIS IS
A TRUE COPY OF THE ORIGINAL MILL TEST
REPORT NOW ON FILE
RECEIVED AND INSPECTED

AUG 23 2013

BY
Q.C. MANAGER

Q. C. Review

Sig.

Date 10/25/13

Lot# 1381674

Level 18, The Gardens North Tower, Mid Valley City, Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia
E-mail: info@kamkiu.com Web Page: www.kamkiu.com

CFR 5/16

CFR 7/16

CERTIFICATE OF CONFORMANCE

JESSE'S PLATING


12229 MONTAGUE ST.
PACOIMA, CA 91331
818-899-4600 VOICE
818-899-0771 FAX

Date	Invoice #
12/27/2013	55304

AS9100 & ISO 9001 CERTIFIED

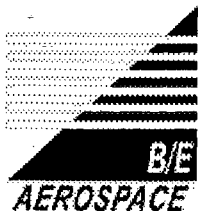
Bill To
AVIBANK MFG INC 11500 SHERMAN WAY NORTH HOLLYWOOD CA 91605

P.O. No.	Terms	Due Date	Rep	Ship Date	Ship Via	Project
753951	2% 15 Net 30	1/26/2014	JV	12/27/2013	Cust. Pickp	

Qty	Item	Description
2.000	73-4AT MIL-A-8625F	REV F BUTTON ANODIZE PER MIL-A-8625F TYPE II CLASS 2 BLUE
<div style="text-align: right;">  Q. C. Review Sig. <i>[Signature]</i> Date 12/27/13 Lot # 1402311 </div>		
<div> CERT REVIEW <hr/> MAIN LOT # 1402728, 1406596 <hr/> COMPONENT LOT # 1373634 <hr/> NAME BUTTON <hr/> CLERK: GV NC <input checked="" type="checkbox"/> DS </div>		

WE HEREBY CERTIFY THE ABOVE PARTS ARE
PROCESSED IN ACCORDANCE WITH APPLICABLE
SPECIFICATIONS. TEST REPORTS ARE ON FILE.
ANY DISCREPANCY MUST BE REPORTED WITHIN 24
HOURS.

BY: *[Signature]* JORGE A VILLAGRAN
TITLE: *[Signature]* Q.A. MANAGER *13*



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
005	50	EA	MS21073L5		51767	PAOLO ASTORI	A3856		


Jason Lewis
Vice President of Quality

12/22/14



PAOLO ASTORI SPA
Via Mirabella, 9 - Maggiate Superiore
28013 Gattico (NO) - ITALY
Tel. (+39) 0322 838847
Fax (+39) 0322 880198
Web: www.paoloastori.com



CERTIFICATE OF CONFORMANCE

N° 484

Date 17/01/2014 Pag. 1 / 1

Purchased by:

B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.
MIAMI - FL
USA

Shipped to:

B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.

33172 MIAMI - FL US

This is to certify that goods listed below have been inspected in our plant and are up to your orders and to the specifications of the drawings mentioned therein.

Country of origin is ITALY.

Pos.	Part Number	Purchase Order	PO Date	Quantity	U.M.	Batch #	Cure Date Expiry Date
1	MS21073L5 RELEASE X8HR0PPM57(Rev. REV2) - NAS698A5	0PPM57	11/06/2013	2539	N	51767	

- SUPPLIES RELEASED IN ACCORDANCE WITH REQUIREM. OF BAE/AG/SC1 PART 3- APPROVAL # BAE/AG/30631/MAA AND WITH AIRBUS SAS APPROVAL # 204788 Se sotto
160 lbs aped con fedex ground, account #0331-0149-0,mark:collect;se sopra 160 lbs aped con fedex economy,account #018757

Airbus approval # 204788 - BAE Approval # BAE/AG/30631/MAA - Complies with DFARS 252.225-7014.
Agusta-Westland Q500 approval # A/0047

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The seller manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, at seller option, and in no case is to exceed the invoice value of such goods. Under no circumstance will seller be liable for damages or cost incurred by buyer or subsequent user beyond the invoiced value of the parts in subject.



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= AS/EN/JISQ 9100 =

QUALITY CONFORMANCE INSPECTION REPORT

Sede legale: via Mirabella, 9 - MAGGIATE Sup. - 28013 GATTICO (NO) ITALY - TEL: 0322-838847 FAX: 0322-880198 www.paoloastori.com

STATEMENT OF CONFORMITY

THIS IS TO CERTIFY THAT PARTS HAVE BEEN PRODUCED, CONTROLLED AND ACCEPTED
ACCORDING TO THE REQUIREMENTS OF THE APPLICABLE SPECIFICATION CALLED BY THE PURCHASE
ORDER AND/OR THE APPLICABLE STANDARD DRAWING.
MATERIAL, HEAT AND SURFACE TREATMENTS AND MANUFACTURING PROCESSES ARE THE SAME AS
THOSE USED FOR THE QUALIFICATION APPROVAL.
SAMPLES SUBJECT OF ALL TESTS WERE BEEN SELECTED AT RANDOM FROM THE PRODUCTION BATCH
COVERED BY THIS DOCUMENT. COUNTRY OF ORIGIN ITALY.
THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF
PAOLO ASTORI SPA.

Matt & Valler 
Signature
Quality Representative

CUSTOMER	see attached COC
P.O.	see attached COC
PART NO.	MS21073L5 per NASM21073 REV SEE COC / NAS698A5
ASTORI CODE	10AD25A503M11
DESCRIPTION	NUT, SELF-LOCKING, PLATE, CORNER
PROCUREMENT SPEC.	NASM25027
BATCH NO.	51767
BATCH QUANTITY	2.600
QUANTITY DELIVERED	see attached COC

Description of component	Raw material specification	Raw material Batch no.	Heat N°	Heath treatment performed	Raw material in accordance with
NUT	SAE1042	-2421	4981	hardening & tempering	ASTM A29
OTHER					
OTHER					
OTHER					

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The seller's manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, as seller option, and in no case is to exceed the invoice value of such goods. Under no circumstance will seller be liable for damages or cost incurred by buyer or subsequent user beyond the invoice value of the parts in subject.



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QUALITY CONFORMANCE INSPECTION REPORT

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SUMMARIZED TEST RESULTS

(all tolerances are expressed in metric and imperial units - test results are recorded as read on the MTE)

Characteristic	Inspection or test to be Performed	Applicable or not	Sample Inspected	Inspection Media	Test Result	Note
Examination of product:						
Design	Verify the design of the nut	A	ALL	VISUAL	OK	
Self-locking device (Major A)	Examination	A	50	VISUAL	OK	see table 1
Thread fit (Major B)	Go-no go gauge - test bolt application	A	20	BOLT GO-GAGE	OK	see table 2
Bearing surface conditions and squareness (Major B)	Check surface roughness and orthogonality error	A	20	OPTICAL COMPARATOR	OK	see table 3
Surface finish, plating or surface treatment (Major B)	Verify the compliance of the surface treatment and condition	A	20	VISUAL	OK	see table 4
Rivet hole location and alignment (Major B)	Measure the position and the distance	A	20	DIGITAL CALIPER	OK	see table 5
Height of nut (Major B)	Measure the dimension	A	20	DIGITAL CALIPER	OK	see table 6
Loose or hanging burrs (Minor)	Verify the presence of any kind of burrs	A	8	VISUAL	OK	see table 7
All other dimensional characteristics not covered above (Minor)	Measure all dimensions with reference on the applicable standard	A	8	DIGITAL CALIPER	OK	see table 8 see attachment
Axial Tensile strength (Table IX)	Verify if the nuts withstand the minimum axial strength	A	10	LOAD MACHINE	OK	see table 9
Locking torque	See below					
Max locking torque (Table IX)	Measure and record the torque value for 1st, 7th, 15th of each nut tested	A	10	LOAD MACHINE	OK	see table 10
Min breakaway torque (Table IX)	Measure and record the torque value for 1st, 7th, 15th of each nut tested	A	10	TORQUE METER	OK	see table 11
Torque out (Table IX)	Torque out value must be not less than the requested value (attribute)	N/A	-	TORQUE METER	OK	see table 12
Push out (Table IX)	Push out value must be not less than the requested value (attribute)	A	10	LOAD MACHINE	OK	see table 13
Discontinuities (Major B)	No cracks at all - Depths of discontinuities not more than values	A	20	VISUAL	OK	see table 14
23-hour stress embrittlement (10 pcs)	Evidence of complete absence of stress embrittlement (attribute)	A	10	VISUAL	OK	see table 15
Magnetic permeability (Table IX)	Cres nuts must have less a magnetic permeability less than 2.0 in air for a field strength of H=200	N/A	-	LOW MU INDICATOR	OK	see table 16
Inspection of packaging (All boxes)	Verify the correctness of packaging	A	ALL	VISUAL	OK	see table 17



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Table 1 - Self locking device - examination (control by attribute : ok/not ok)



OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK														

Table 2 - Thread fit (control by attribute : go-nogo gage ok/not ok - bolt application)



OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK												

Table 3 - Bearing surface max. squareness deviation admitted $\frac{0.15 \text{ mm (0.0059 in)}}{3.2 (125 \text{ micro in})}$ max. measured $\frac{0.06 \text{ mm (0.0023 in)}}{1.6 (63 \text{ micro in})}$
Surface roughness max. value admitted

0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.04	0.05	0.04	0.04	0.03	0.04	0.06	0.06
0.04	0.05	0.04	0.05												
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
1.6	1.6	1.6	1.6												

Table 4 - Surface finish, plating or surface treatment (control by attribute : ok/not ok)



Actual finishing CADMIUM PLATED IN ACC WITH AMS-QQ-P-416 TYPE II CLASS 2

LUBRICATED IN ACC WITH AS5272

OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK												

Table 5 - Rivet hole location and alignment.

Dimension requested 12.90 +/-0.05 mm (0.508 +/-0.002 in) max. range measured 12.95 mm (0.510 in)



12.93	12.93	12.94	12.93	12.94	12.93	12.93	12.93	12.95	12.94	12.92	12.95	12.93	12.92	12.93	12.91
12.92	12.92	12.93	12.93												

Table 6 - Height of nut Dimension requested 8.33 mm max (0.328 in max) max. range measured 7.59 mm (0.299 in)



7.44	7.59	7.45	7.44	7.40	7.47	7.52	7.55	7.56	7.50	7.49	7.58	7.56	7.48	7.56	7.44
7.52	7.49	7.46	7.46												

Date: 14/01/14

Batch N° 51767



page 3 of 5



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QUALITY CONFORMANCE INSPECTION REPORT

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Table 7 - Loose or hanging burrs (control by attribute by means visual examination ok/not ok)



OK	OK	OK	OK	OK	OK	OK	OK								
----	----	----	----	----	----	----	----	--	--	--	--	--	--	--	--

Table 8 - All other dimensional characteristics not covered above (reference on the tolerances of the applicable standard dwg)



OK	OK	OK	OK	OK	OK	OK	OK								
----	----	----	----	----	----	----	----	--	--	--	--	--	--	--	--

Table 9 - Axial Tensile strength - Minimum load requested 32883 N (7399 lb) max. measured 33900 N (7628 lb)



33900	33900	33900	33900	33900	33900	33900	33900	33900	33900						

Table 10 - Max locking torque -
Max. installation torque admitted 6.78 Nm (60.01 in-lb) max. measured 6.14 Nm (54.35 in-lb)



6.00	6.04	5.97	5.94	6.09	5.92	6.14	5.98	5.91	6.11						
4.00	4.04	3.97	3.94	4.09	3.92	4.14	3.98	3.91	4.11						
2.80	2.84	2.77	2.74	2.89	2.72	2.94	2.78	2.71	2.91						

Table 11 - Min breakaway torque -
Min. breakaway torque requested 0.74 Nm (6.55 in-lb) min. measured 2.11 Nm (18.68 in-lb)



5.80	5.84	5.77	5.74	5.89	5.72	5.94	5.78	5.71	5.91						
3.60	3.64	3.57	3.54	3.69	3.52	3.74	3.58	3.51	3.71						
2.20	2.24	2.17	2.14	2.29	2.12	2.34	2.18	2.11	2.31						

Table 12 - Torque out - Minimum requested value _____ (control by attribute : ok/not ok) N/A

Table 13 - Push out - Minimum requested value 556 N (125 lb) (control by attribute : ok/not ok) 610 N (137 lb)



OK	OK	OK	OK	OK	OK	OK	OK	OK	OK						





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QUALITY CONFORMANCE INSPECTION REPORT

Sede legale: via Mirabella, 9 - MAGGIATE Sup. - 28013 GATTICO (NO) ITALY-TEL: 0322-838847 FAX: 0322-880198 www.paoloastori.com

Table 14- Discontinuities-No cracks at all-no discontinuities with depth more than 0.13 mm (control by attribute : ok/not ok)
NDT MAGNETIC INSPECTION per ASTM-E-1444



OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK												

Table 15 - 23-hour stress embrittlement (control by attribute : ok/not ok)



OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
----	----	----	----	----	----	----	----	----	----	----

Table 16- Magnetic permeability - (control by attribute : ok/not ok)N/A

Table 17- Inspection of packaging - (control of each package unit of the shipment : ok/not ok with respect to the order requirements)

OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

SAMPLING TABLES

TABLE FOR MAJOR A CHARACTERISTICS

BATCH SIZE	SAMPLE SIZE	AN	RN
<35,000	50	0	1
35,000<Q<150,000	80	0	1
150,000<Q<500,000	80	0	1

TABLE FOR MAJOR B CHARACTERISTICS

BATCH SIZE	SAMPLE SIZE	AN	RN
<35,000	20	0	1
35,000<Q<150,000	32	0	1
150,000<Q<500,000	32	0	1

TABLE FOR MINOR CHARACTERISTICS

BATCH SIZE	SAMPLE SIZE	AN	RN
<35,000	8	0	1
35,000<Q<150,000	13	0	1
150,000<Q<500,000	13	0	1

TABLE IX

BATCH SIZE	SAMPLE SIZE	AN	RN
<50,000	10	0	1
50,000<Q<100,000	15	0	1
Q>100,000	27	0	1

Date: 14/01/14

Batch N° 51767



page 5 of 5



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

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Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
001	200	EA	MS21060L3K		5277262-000	ALCOA KAYNAR FULLERT	15653		



Jason Lewis
Vice President of Quality

12/22/14

Alcoa Fastening Systems



Packing Slip

Packing Slip: 9947897292

Page: 1

Bill To: 5574
M & M AEROSPACE
HARDWARE, INC.
P.O. BOX 025263
MIAMI FL 33102-5263

Ship To: (1)
M & M AEROSPACE
10000 N.W. 15TH TERRACE
MIAMI FL 33172

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Notice to Subsequent Purchaser or Repacker.
These articles are imported. The requirements of 19 U.S.C. 1304 & CFR part 134 provide that the articles or their containers must be marked in a conspicuous place as legibly, indelibly & permanently as the nature of the article or container will permit, in such a manner as to indicate to an ultimate purchaser in the United States, the English name of the country of origin of the article.

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
03/11/08	F284673	OEB586			

Line/Rel	Item	Qty Ordered	Qty To Pack
1-1	BG5040 F5001-3BC	100	67

C/I: MS21060L3K
PO Item #:

Cust Date: 11/25/08
Kay Date: 12/13/07

*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Lot: 5277262-000

COO:MEXICO

Waybill:

ECCN:9A991 Schedule-B Number:7318.16.0000

The export classification appears above. You are responsible for all related export license requirements.

CHEM & PHYS & MFG C OF C REQ
DUAL CERT TO F5001-3BC & NAS686C3MK
BILL LINE 1,2,3 & 4 TOGETHER

BUYER:CLAUDIA
5-592-5155

PHONE: 30

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

Christopher Fredrickson
CHRISTOPHER FREDRICKSON
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Keynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776
ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
002	300	EA	MS9321-09		1029-6/4/14	MOELLER MFG	58009		


Jason Lewis
Vice President of Quality

12/22/14

**MOELLER MFG. & SUPPLY, INC.**

805 EAST CERRITOS • ANAHEIM, CA 92805

(714) 999-5551 • FAX (714) 999-5970

<http://www.moellermfg.com>

cage code: 58009

SHIPPER NO. : 60605

CERTIFICATION**PACKING LIST**S
O
L
D
T
OB/E AEROSPACE, INC
CONSUMABLES MGMT
PO BOX 025263

MIAMI

FL 33102-5263

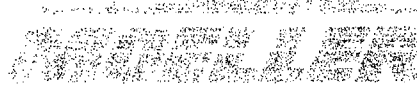
Customer #: B/E AER-FL

S
H
I
P
T
OB/E AEROSPACE CONSUMABLES
MANAGEMENT
9835 NW 14TH ST

MIAMI

FL 33172

P.O. #: 0XML49

DATE ORDER REC'D.	ORDER NO.	COMMENTS	SHIPPED VIA	TERMS	DUE
6/3/2014	0XML49		FEDXFRTECO	1%-10/N-30	8/4/2014
ITEM	ORDERED	SCHEDULED	SHIPPED	PART NUMBER/DESCRIPTION	NET WT.
01	250,000	125,000	125,000 SG	MS9321-09 REV. N/C LOT 1029- <u>6/4/14</u> SCHEDULED DELIVERY FULL CERTS DFAR 252.225-7009 AA.1BCHPUV 	9.73 38.60

MANUFACTURED IN THE U.S.A.

MOELLER MFG. & SUPPLY, INC. - PACKING LIST & CERTIFICATION

WE CERTIFY THAT THE MATERIAL ON THIS ORDER CONFORMS IN ALL RESPECTS TO THE CURRENT APPLICABLE GOVERNMENT AND/OR MANUFACTURER'S SPECIFICATIONS.

- ALL ITEMS ABOVE ARE MANUFACTURED IN ACCORDANCE WITH THE MATERIAL AND PROCESSING SPECIFICATIONS OF THIS ORDER. WE ALSO CERTIFY THAT THESE PARTS HAVE NOT COME IN CONTACT WITH MERCURY WHILE IN OUR POSSESSION.
- THE GOODS COVERED BY THIS INVOICE WERE PRODUCED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF THE FAIR LABOR STANDARD ACTS OF 1938, AS AMENDED. ALL CLAIMS FOR ERRORS OR SHORTAGES MUST BE MADE WITHIN 10 DAYS AFTER RECEIPT OF GOODS. NO GOODS TO BE RETURNED WITHOUT WRITTEN AUTHORIZATION. ALL CLAIMS FOR DEFECTIVE MATERIAL MUST BE FILED WITHIN 30 DAYS OF SHIPMENT TO RECEIVE CONSIDERATION. WE DO NOT ASSUME FINANCIAL RESPONSIBILITY FOR LIABILITY FROM THE USE OF PRODUCTS SOLD, OTHER THAN REPLACEMENT VALUE OF THE PRODUCTS SOLD, IF CLAIMED WITHIN THE SPECIFIED TIME LIMIT ABOVE.
- PARTS ARE TO BE CONSIDERED ITAR EXEMPT OR DUAL PURPOSE UNLESS OTHERWISE STATED.

BY


DARIN MOELLER, QUALITYRECEIVED IN
GOOD CONDITION BY
DATE7/21/14

PACKED BY

SG

BAGS

CARTONS

7

GROSS WT.

251

MOELLER MANUFACTURING. & SUPPLY, INC. • 805 EAST CERRITOS • ANAHEIM, CA 92805 • U.S.A.



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

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www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO26870

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
004	50	EA	MS21069L3		60363	PAOLO ASTORI	A3856		


Jason Lewis
Vice President of Quality

12/22/14

**PAOLO ASTORI SPA**

Via Mirabella, 9 - Maggiate Superiore
28013 Gattico (NO) - ITALY
Tel. (+39) 0322 838847
Fax (+39) 0322 880198
Web: www.paoloastori.com

**CERTIFICATE OF CONFORMANCE****N° 9606****Date 17/10/2014****Pag. 1 / 1****Purchased by:**

B/E AEROSPACE INC.CONSUMABLES MANAG
10000 NW 15TH TERRACE
MIAMI - FL
USA

Shipped to:

B/E AEROSPACE INC.CONSUMABLES MANAG
9835 NW 14TH ST.

33172 MIAMI - FL US

This is to certify that goods listed below have been inspected in our plant and are up to your orders and to the specifications of the drawings mentioned therein.

Country of origin is ITALY.

Pos.	Part Number	Purchase Order	PO Date	Quantity	U.M.	Batch #	Cure Date Expiry Date
1	MS21069L3 RELEASE W0170KJE83(Rev. REV1)	OKJE83/3	17/08/2012	4955	N	60363	
2	MS21069L3 RELEASE W0170KJE83(Rev. REV1)	OKJE83/3	17/08/2012	10000	N	60363	
3	MS21069L3 RELEASE W0170KJE83(Rev. REV1)	OKJE83/3	17/08/2012	10000	N	60363	

• SUPPLIES RELEASED IN ACCORDANCE WITH REQUIREM. OF BAE/AG/SC1 PART 3- APPROVAL # BAE/AG/30631/MAA AND WITH AIRBUS SAS APPROVAL # 204788 Se sotto 150 lbs sped con fedex ground, account #0331-0149-0,mark:collect;se sopra 150 lbs sped con fedex economy,account #018757

Airbus approval # 204788 - BAE Approval # BAE/AG/30631/MAA- complies with DFARS 252.225-7014.
Agusta-Westland Q500 approval # A/0047

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The seller manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, at seller option, and in no case is to exceed the invoice value of such goods. Under no circumstance will seller be liable for damages or cost incurred by buyer or subsequent user beyond the invoiced value of the parts in subject.



PAOLO ASTORI

PAOLI AUTOBLOCCANTI e MINUTERIE METALLICHE
per COSTRUZIONI AERONAUTICHE

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.000,00 int. vers.
Cod. Fisc.: Part. IVA n. P.I. Novara 00111940037
R.E.A. Novara 48590 - Albo Imp. Exp. NO 009081

PAOLO ASTORI SpA - Via Mirabella, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838847 - Fax +39 0322 880198
www.paoloastori.com

Certificate of Test

Manufacturer: Paolo Astori spa, Via Mirabella 9, 28013 Gattico (NO), ITALY

Report number : 681
Date performed: 2014-10-13
Inspector: PAMELA , CALABRESE

Procurement spec: NASM25027
NUT, SELF-LOCKING, 250F, 450F, AND 800F

Part code: 1OAD25A302M11
Part number: MS21069L3
Product standard: MS21069 (11/2010)
NUT, SELF-LOCKING, PLATE, TWO LUG, REDUCED RIVET SPACING, LOW HEIGHT, STEEL

Revision level: see certificate of conformity

Batch number: 60363
Batch quantity: 25000
Expiry date: Not applicable
Manufacturing date: 2014-10-09

Additional cross-references: NAS697A3

Customer: see certificate of conformity
Purchase order: see certificate of conformity
Quantity delivered: see certificate of conformity

1 Statement of Conformity

This is to certify that parts have been produced, controlled and quality assured according to the requirements of the applicable specification requested by the purchase order and/or the applicable standard drawing. Material, heat and surface treatments and manufacturing processes are the same as those used for the qualification approval. Samples for testing have been randomly selected from the production batch covered by this document. Country of origin is Italy. Unless otherwise stated, all special processes have been undertaken by Paolo Astori. This report shall not be reproduced except in full, without the written approval of Paolo Astori spa.

2 Disclaimer

All claims regarding the parts in subject must be reported to seller promptly. Credit or replacement of parts may be limited to those parts for which traceability has been maintained by the buyer. The seller's manufacturing lot identification number and return authorization (RMA) must accompany all returns. Any discrepancy claimed by the Customer must be made in writing to seller not later than ninety (90) days after the shipping date. The liability of seller on parts found to be defective is limited to replacement or rework of such goods, at seller option, and in no case is to exceed the invoiced value of such goods. Under no circumstances will seller be liable for damages or costs incurred by buyer or subsequent user beyond the invoice value of the parts in subject.

Batch # 60363

Inspector's signature

1 of 7



PAOLO ASTORI

MACCHINE AUTOMATICHE E MINUTERIE METALLICHE
per COSTRUZIONI AERONAUTICHE

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.000.000 int. vers.
Cod. Fisc. Part. I.V.A. e R.I. Novara 0011940037
R.E.A. Novara 18550 - Albo Imp-Exp NO 009021

PAOLO ASTORI SpA - Via Mirabella, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838847 - Fax +39 0322 880198
www.paoloastori.com

3 Components and raw materials

Component name	Component batch	Material batch	Heath	Material spec
-	-	-3024	000B1669	SAE1042 (MEQU13/01C)

4 Special processes

Component name	Process	Specification
NUT	CAD PLATING	AMS-QQ-P-416C
NUT	LUBRICATION	NASM25027/NAS3356

5 Hardness

Component name	min hardness	max hardness	avg hardness
NUT	80.40 HR15N	81.60 HR15N	81.01 HR15N

6 Final inspection measurements

6.1 SELF LOCKING DEVICE EXAMINATION

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Number of samples tested: 20

6.2 THREAD FIT

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK
----	----	----	----	----	----	----	----

Number of samples tested: 8

6.3 BEARING SURFACE SQUARENESS

Unit of measure: mm (inch)

0.08 (0.0031)	0.04 (0.0016)	0.06 (0.0024)	0.07 (0.0028)	0.06 (0.0024)	0.04 (0.0016)	0.06 (0.0024)	0.06 (0.0024)
------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

Number of samples tested: 8

	Min	Max	Avg
Allowed:	-	0.13 (0.0051)	
Found:	0.04 (0.0016)	0.08 (0.0031)	0.06 (0.0023)

[Signature]



PAOLO ASTORI

MACCHINE AUTOMATICHE E MINUTERIE METALLICHE
PER COSTRUZIONI AERONAUTICHE

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.000.000,00
Cod. Fisc. Part. IVA e R.I. Novara 03111940037
R.E.A. Novara 48990 - Auto Imp. Exp. N.0 000081

PAOLO ASTORI SpA - Via Mirabella, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838817 - Fax +39 0322 880198
www.paoloastori.com

6.4 SURFACE FINISH, PLATING OR SURFACE TREATMENT

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK	OK
----	----	----	----	----	----	----	----	----

Number of samples tested: 8

6.5 RIVET HOLE LOCATION AND ALIGNEMENT

Unit of measure: mm (inch)

12.72 (0.5008)	12.72 (0.5008)	12.72 (0.5008)	12.70 (0.5000)	12.71 (0.5004)
12.72 (0.5008)	12.71 (0.5004)	12.71 (0.5004)		

Number of samples tested: 8

	Min	Max	Avg
Allowed:	12.65 (0.4980)	12.75 (0.5020)	
Found:	12.70 (0.5000)	12.72 (0.5008)	12.71 (0.5005)

6.6 HEIGHT OF NUT

Unit of measure: mm (inch)

5.42 (0.2134)	5.41 (0.2130)	5.41 (0.2130)	5.40 (0.2126)	5.38 (0.2118)
5.40 (0.2126)	5.40 (0.2126)	5.41 (0.2130)		

Number of samples tested: 8

	Min	Max	Avg
Allowed:	- (-)	6.30 (0.2480)	
Found:	5.38 (0.2118)	5.42 (0.2134)	5.40 (0.2127)

6.7 LOOSE OR HANGING BURRS

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK	OK
----	----	----	----	----	----	----	----	----

Number of samples tested: 8



PAOLO ASTORI

DADI AUTOM. E CANTIERE MINUTERIE METALLICHE
per COSTRUZIONI AERONAUTICHE

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.650.000 int. vers.
Cod. Fisc. Part. IVA e R.I. Numero 00111940037
P.E.A. Numero 58590 - Albo Imp. Esp. NO 009081

PAOLO ASTORI SpA - Via Mirabella, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838847 - Fax +39 0322 880198
www.paoloastori.com

6.8 ALL OTHER DIMENSIONAL CHARACTERISTICS NOT COVERED

Unit of measure: ATTR

OK OK OK

Number of samples tested: 3

6.9 AXIAL TENSILE STRENGTH

Unit of measure: N (lbf)

12100.00 (2720.1882)	12050.00 (2708.9478)	12000.00 (2697.7073)	12100.00 (2720.1882)	11950.00 (2686.4669)
11550.00 (2596.5433)	11900.00 (2675.2264)	11600.00 (2607.7837)	11850.00 (2663.9860)	11650.00 (2619.0242)

Number of samples tested: 10

	Min	Max	Avg
Allowed:	10946.00 (2460.7587)	- (-)	
Found:	11550.00 (2596.5433)	12100.00 (2720.1882)	11875.00 (2669.6062)

6.10 MAX LOCKING TORQUE 1st CYCLE

Unit of measure: Nm (lbf-in)

1.38 (12.2140)	1.40 (12.3910)	1.42 (12.5681)	1.40 (12.3910)	1.36 (12.0370)
1.40 (12.3910)	1.38 (12.2140)	1.46 (12.9221)	1.48 (13.0991)	1.34 (11.8600)

Number of samples tested: 10

	Min	Max	Avg
Allowed:	- (-)	2.03 (17.9670)	
Found:	1.34 (11.8600)	1.48 (13.0991)	1.40 (12.4087)

[Signature]



PAOLO ASTORI

DADI AUTOBLOCCANTI & MINUTERIE METALLICHE
per COSTRUZIONI AERONAUTICHE

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.000.000 i.v. vers.
Cod. Fisc. Part. IVA e R.I. Novara 00111940037
R.E.A. Novara 48560 - Add. Imp. Exp. NO 000081

PAOLO ASTORI SpA - Via Mirabolla, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838847 - Fax +39 0322 880198
www.paoloastori.com

6.14 MIN.BREAKAWAY TORQUE 7th CYCLE

Unit of measure: Nm (lbf-in)

0.44	0.46	0.48	0.46	0.42	0.46	0.44	0.52	0.54	0.40
(3.8943)	(4.0713)	(4.2484)	(4.0713)	(3.7173)	(4.0713)	(3.8943)	(4.6024)	(4.7794)	(3.5403)

Number of samples tested: 10

	Min	Max	Avg
Allowed:	0.23 (2.0357)	- (-)	
Found:	0.40 (3.5403)	0.54 (4.7794)	0.46 (4.0890)

6.15 MIN.BREAKAWAY TORQUE 15th CYCLE

Unit of measure: Nm (lbf-in)

0.42	0.44	0.46	0.44	0.40	0.44	0.42	0.50	0.52	0.38
(3.7173)	(3.8943)	(4.0713)	(3.8943)	(3.5403)	(3.8943)	(3.7173)	(4.4254)	(4.6024)	(3.3633)

Number of samples tested: 10

	Min	Max	Avg
Allowed:	0.23 (2.0357)	- (-)	
Found:	0.38 (3.3633)	0.52 (4.6024)	0.44 (3.9120)

6.16 PUSH-OUT

Unit of measure: N (lbf)

539.00	510.00	520.00	500.00	500.00
(121.1720)	(114.6526)	(116.9007)	(112.4045)	(112.4045)
530.00	500.00	539.00	510.00	520.00
(119.1487)	(112.4045)	(121.1720)	(114.6526)	(116.9007)

Number of samples tested: 10

	Min	Max	Avg
Allowed:	445.00 (100.0400)	- (-)	
Found:	500.00 (112.4045)	539.00 (121.1720)	516.80 (116.1813)



PAOLO ASTORI

DADI AUTORI, OCCANTI & MINUTERIE METALLICHE
per COSTRUZIONI AEROSPAZIALI

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= EN 9100:2003 =

Capitale Sociale € 120.000,00 int. vers.
Cod. Fisc. Part. I.V.A. e P.I. Novara 0011940017
R.E.A. Novara 18580 - Apertura Fap NO 009081

PAOLO ASTORI SpA - Via Mirabolia, 9
28013 MAGGIATE SUP. - GATTICO (NO) - ITALY
Tel. +39 0322 838847 - Fax +39 0322 880198
www.paoloastori.com

6.17 DISCONTINUITIES

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	OK								

Number of samples tested: 32

6.18 23-HOURS STRESS EMBRITTMENT

Unit of measure: ATTR

OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
----	----	----	----	----	----	----	----	----	----

Number of samples tested: 10



GIUSEPPE & F. LLI BONAITI S.p.A.

NASTRO E FILO DI ACCIAIO

Sede legale e amministrativa:
Piazza Verdi, 3/A
23801 CALOLZIOCORTE (LC)
tel. 0341 633080 fax 0341 633081
internet: www.bonaitigiuseppe.it
e-mail: info@bonaitigiuseppe.it

CERTIFICATO DI CONTROLLO

(Tipo 3.1 secondo norma EN 10204:2004)

Nr del
919 29/01/13

Spett.

PAOLO ASTORI SPA
VIA MIRABELLA 9
28013 MAGGIATE SUPERIORE NO

Vs. Ord. 21784 del 21/11/12

Ns. Con. 32/002215-02 del 21/11/12

DDT N. 446 del 31.1.13

PRODOTTO Cod.

NASTRO C45E SAE1042 MM. 21,0X0,86

PAOLO ASTORI SPA

- 3024

RISULTATI PROVE

FOGLIO DI LAVORAZIONE

FDL LA 2012 005106

Documento N. RAW MATERIAL LOT

Prova

RESISTENZA A TRAZIONE N/MM2 480

ALLUNGAMENTO % A80MM. 27,75

CARICO UNIT. SCOST. PROP. RP0.2 337,00

PIEGAMENTO TRASVERSALE 180° OK

Prova

RESISTENZA A TRAZIONE N/MM2 499

ALLUNGAMENTO % A80MM. 27,82

CARICO UNIT. SCOST. PROP. RP0.2 350,00

PIEGAMENTO TRASVERSALE 180° OK

Certifichiamo che il prodotto è conforme alle richieste della conferma d'ordine.

LABORATORIO PROVE

L. Panzeri

ANALISI COLATA

(Verifica effettuata dal fornitore materia prima)

Colata 000B1669

L. 40554 / 001 . E

C	Mn	Si	P	S	Al	Cr	Cu	Ni	Mo	V
0,463	0,663	0,242	0,008	0,003	0,032	0,249	0,026	0,055	0,007	0,003

10055 REV.2

Test report 2.2		No. (A03)	1088579
DIN EN 10204		Page	1/1
(A02)		Date	21.05.2012
No. (A07)	32/90/000160	03.02.2012	No. (A07)
Purchaser (A08)	Guiseppa & Frat. Bonaiti SpA	Customer (A08)	Guiseppa & Frat. Bonaiti SpA
	23081 CALOLZIOCORTE (LC)		23081 CALOLZIOCORTE (LC)
	ITALIEN		ITALIEN
Product (B01)	Hot rolled wide strip		Works order No. (A09)
			0001164101
Steel grade and terms of delivery (B02-B03)	C 45		Dispatch note No. (A10)
	DIN EN 10083 T.2/10.2006		0083730467
	CHI/2451 Rev.3-15.06.11		19.05.2012
	DIN EN 10051:2011-02		Inspection (A11)
	1		WS

Material data (B01-B04)					
Item (B05)	Quantity (B06)	Product No. (B07)	Heat No. (B08)	Cond. of delivery (B09)	Thickness x Width (B10-B11) mm x mm
01	3		000B1669	U	2,00 x 1300,0
Σ	3	Weight (B12)	70.200 tps	U: as rolled	

Ladle analysis (C75-C76)										
Heat No. (B07)	C %	Si %	Mn %	P %	S %	Ni %	Al %	Cu %	Cr %	Mo %
	0,42 - 0,47	≤ 0,40	0,50 - 0,80	≤ 0,045	≤ 0,003				≤ 0,06	
000B1669	0,463	0,242	0,663	0,008	0,003	0,055	0,032	0,026	0,249	0,007
Heat No. (B07)	V %									
000B1669	0,003									
Steel making: Basic oxygen process (C70)										

Our products are free of radioactive substances and do not exceed the clearing limit value of 100 Bq/kg, which guarantees the compliance with limit values given in the Radiation Protection Ordinance (StrlSchV) for the unrestricted clearance of solid material (StrlSchV Annex III, Section 5) for ferrous nuclides.

We hereby certify that the delivered material complies with the terms of the order.
(Z01)

 Trademark (A04)

Salzgitter Flachstahl GmbH
Eisenhüttenstr. 89
D-38223 Salzgitter
(A01)

Inspection Representative
(Z02)

Kratz

This certificate was prepared by a suitable data processing system and is valid without signature according to EN 10 214, section 5.